NOTE: PLAN & ELEVATION VIEWS ARE SHOWN AS TYPICAL AND MAY VARY PER THE MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 650.

STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
GA	NHS-M001-00(732)		140	159

TYPICAL SYSTEM LENGTH

STEEL BACKUP SHOWN, CONC. BACKUP MAY BE SPECIFIED.

ENERGY ABSORBING DEVICES

OFFSET AS SPECIFIED (SEE NOTE 10)

WIDE OBJECT (SEE PLANS)

4'-0" TYP.

OUTLINE OF REINF. CONCRETE PAD

PAD LENGTH

TRANSITION DEFLECTOR PANEL (REQUIRED FOR BIDIRECTIONAL TRAFFIC) SEE NOTE NO. 10.

PLAN (TAPERED UNIT)
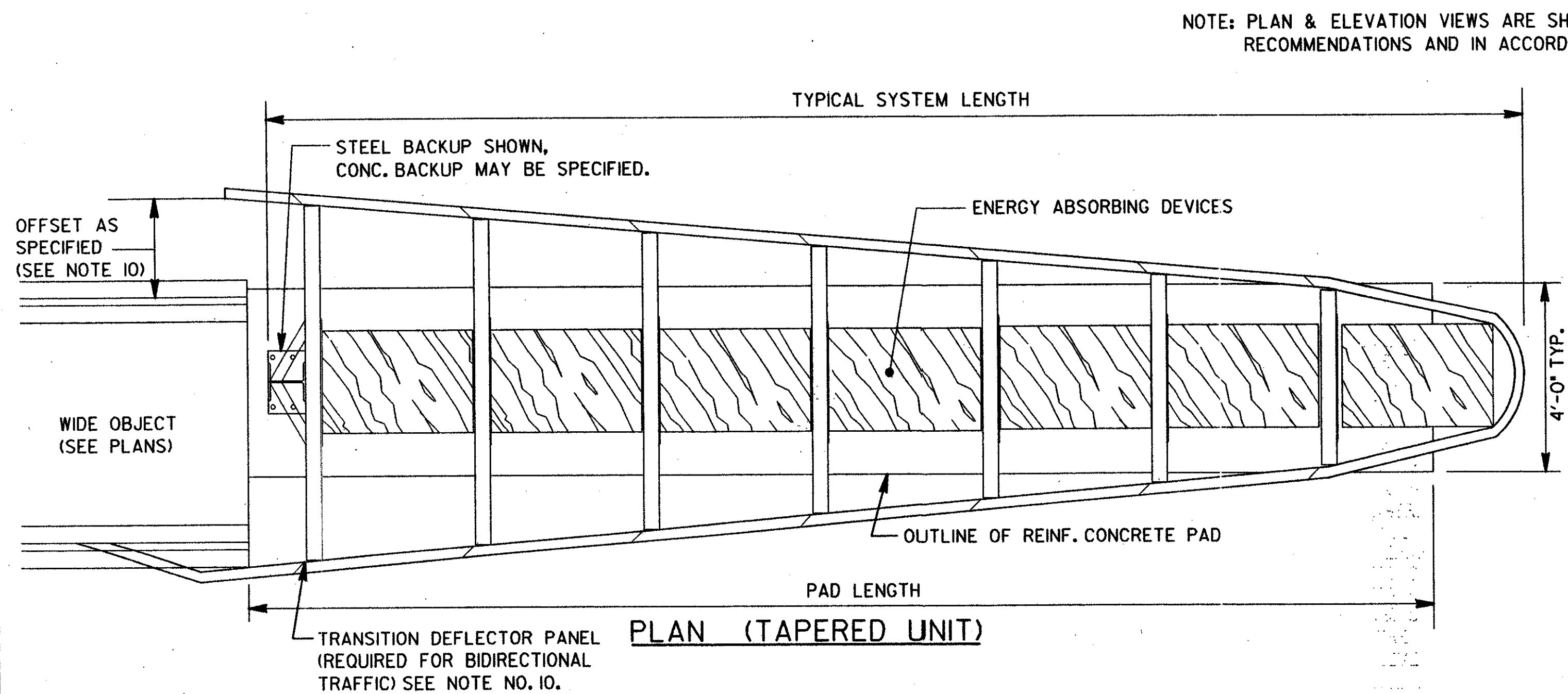
DESIGN SPEED (mph)	TYPICAL SYSTEM LENGTHS (FT.)		
	STANDARD LENGTH (WITH STEEL BACK-UP)	MODIFIED FOR CONC. BACK-UP	WITH 10 FT. CONC. TRANS.
TO 35	10	11.5	20
40-45	13	14.5	23
50	16	17.5	26
55	19	20.5	29
60	22	23.5	32
65	26	27.5	36
70	31	32.5	41
75	34	35.5	44

STANDARD STEEL BACK-UP SHALL BE USED UNLESS SPECIFIED OTHERWISE. CONCRETE BACK-UP MAY BE USED AS AN ALTERNATE AT LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
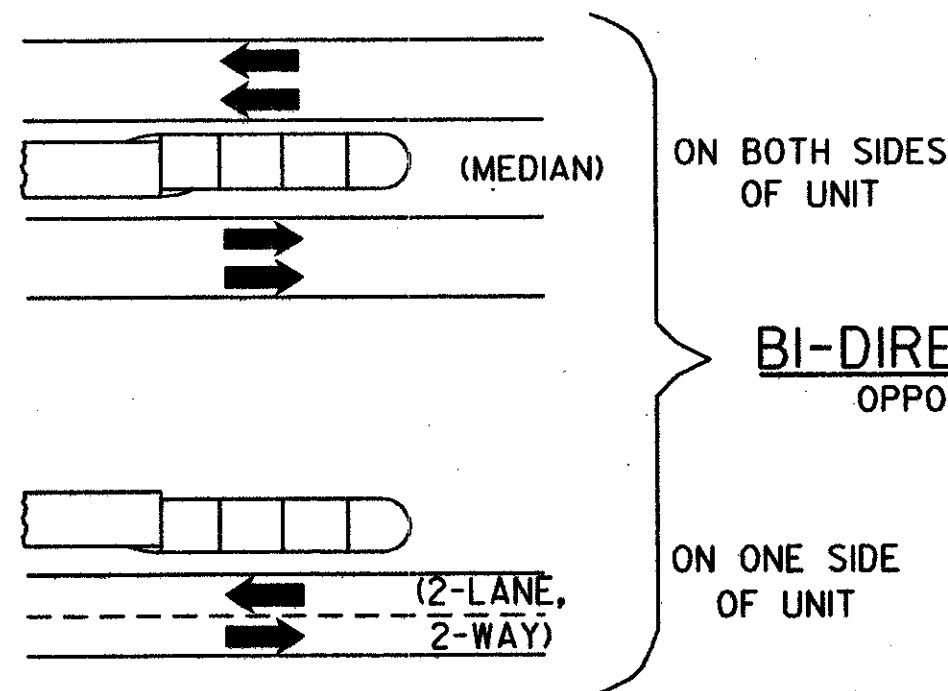
THE LENGTHS IN ABOVE TABLE ARE COMMON OVERALL APPROXIMATE LENGTHS. VARIATIONS MAY BE SUBMITTED FOR APPROVAL. SEE SUB-SECTION 650.03.
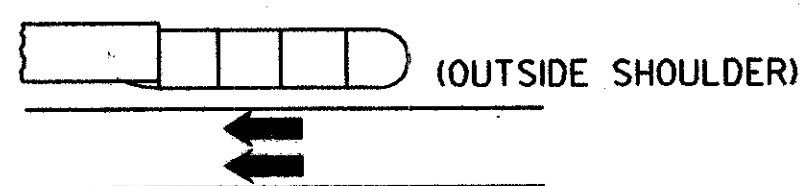
TYPICAL SYSTEM LENGTH (CONCRETE BACKUP) - SEE TABLE

TYPICAL SYSTEM LENGTH (STEEL BACKUP) - SEE TABLE

SEE NOTE #10

OUTLINE OF REINF. CONCRETE PAD

STATION & DISTANCE AS SHOWN ON PLANS

2'-6" TYP.

4'-0" TYP.

SEE NOTE #10

ENERGY-ABSORBING DEVICES

FENDER PANEL (TYP.)

NOSE ASSEMBLY (YELLOW IN COLOR)

VAR. SEE NOTE #7

PAD LENGTH (STEEL BACKUP)

PAD LENGTH (CONCRETE BACKUP)

PLAN

CONCRETE BACKUP SHOWN, STEEL BACKUP MAY BE SPECIFIED.

SEE NOTE #10

FENDER PANEL (TYP.)

NOSE ASSEMBLY (YELLOW IN COLOR)

NOSE STRIPING PANEL

32" TYP.

PAV. SURFACE OR GROUNDLINE

SEE NOTE NO. 5

REINFORCED CONCRETE PAD IS TYPICAL FOR PERMANENT INSTALLATION. TEMPORARY ATTENUATOR IS TYPICALLY ANCHORED TO EXISTING PAVING PER MANUFACTURER'S REQUIREMENT.

SEE NOTE NO. 6

ELEVATION

TRAFFIC FLOW DESIGNATIONS (TYP.)

SEE SUB-SECTION 650.03
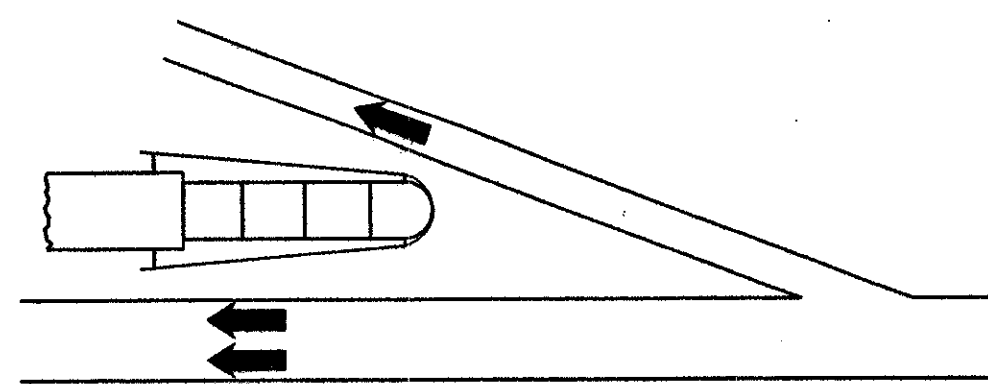
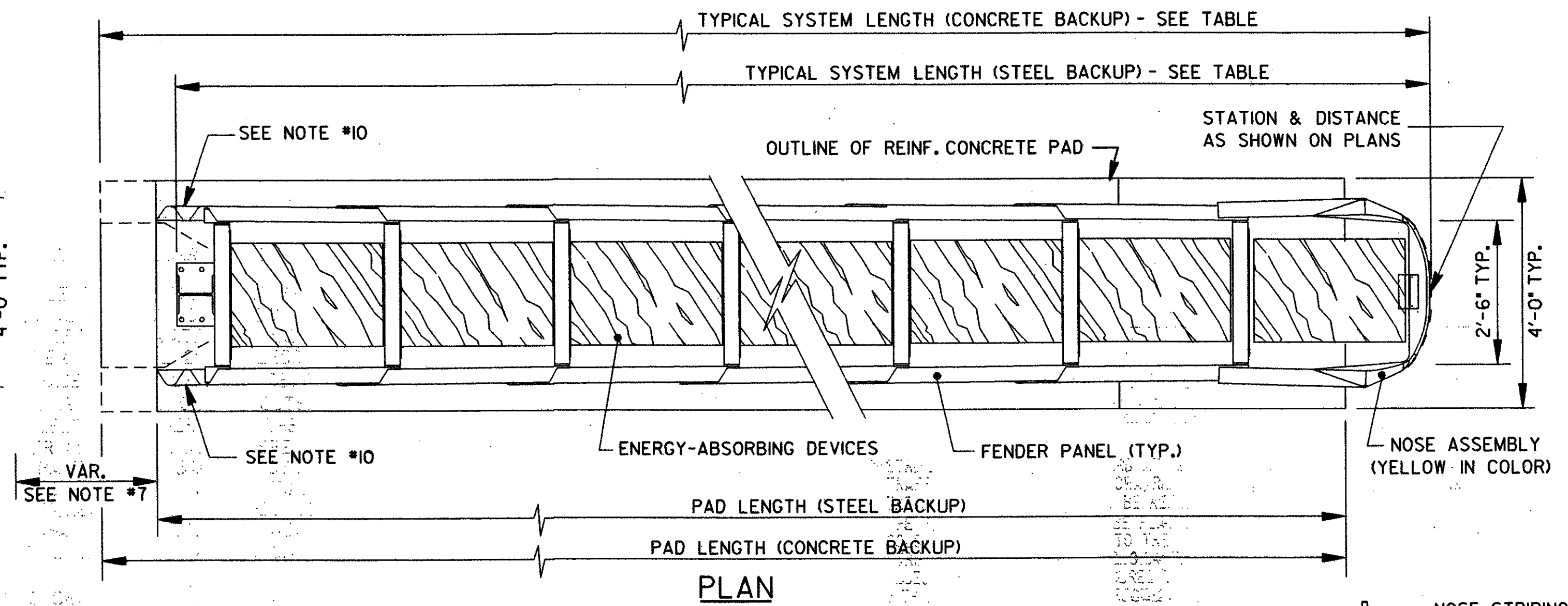UNI-DIRECTIONAL (U)

TRAFFIC IN SAME DIRECTION ON BOTH SIDES

ON BOTH SIDES OF UNIT (MEDIAN)

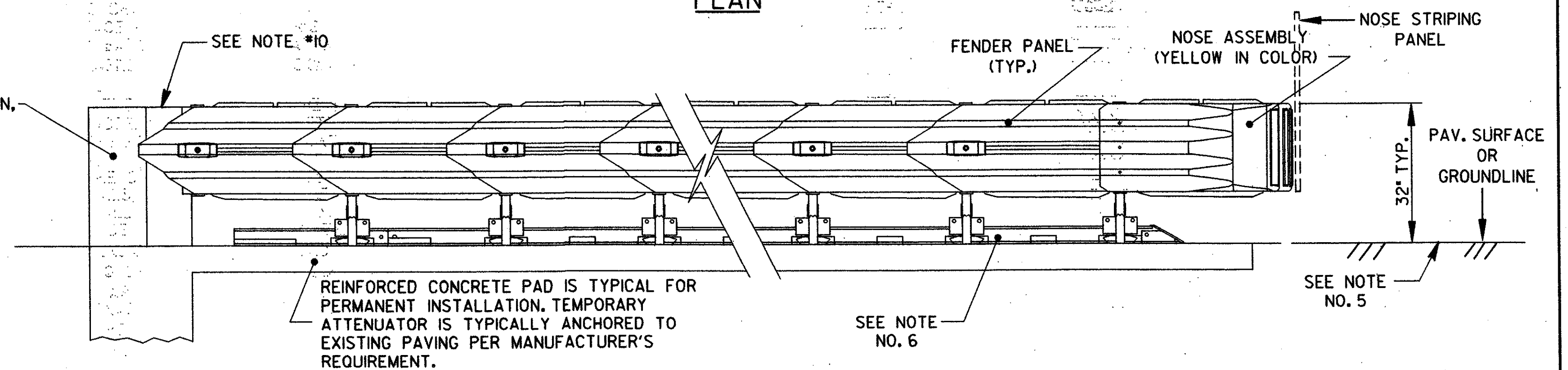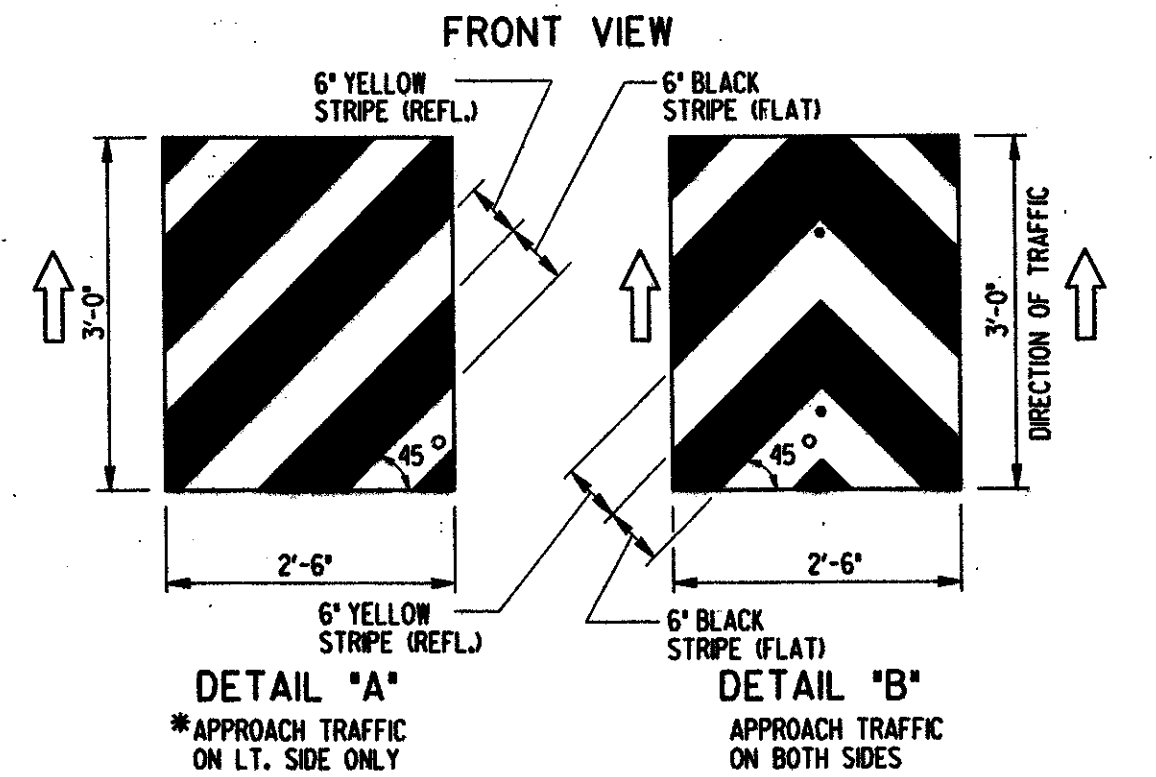BI-DIRECTIONAL (B)

OPPOSITE DIRECTIONS

ON ONE SIDE OF UNIT (2-LANE, 2-WAY)

NOTE:
WHEN ORDERING ATTENUATOR, TRAFFIC SHALL BE SPECIFIED AS 'U' OR 'B' OR 'S' FOR EACH UNIT. SEE SECTION 650 FOR ADDITIONAL DESCRIPTION.

(OUTSIDE SHOULDER)

SINGLE DIRECTION (S)

SINGLE SIDE ONLY EXPOSED TO TRAFFIC

GENERAL NOTES

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION AND SUPPLEMENTS THERETO. SEE SECTION 650.
2. ALL ATTENUATORS WILL BE OF TYPE WHICH HAS BEEN APPROVED BY THE GA. D.O.T. AND FEDERAL HIGHWAY ADMINISTRATION AS MEETING NCHRP 350 REQUIREMENTS AND HAS BEEN CLASSIFIED AS 'ACCEPTED' BY THE DOT OFFICE OF MATERIALS AND RESEARCH.
3. THE WIDTH OF THE SYSTEM SHALL BE 2'-6" UNLESS SPECIFIED OTHERWISE. UNITS HAVING A REAR WIDTH LESS THAN THE BASE OF THE SHIELDED OBJECT SHALL REQUIRE A CONCRETE TRANSITION, EXCEPT WHERE THE UNIT IS LOCATED ON THE OUTSIDE SHOULDER.
4. WHERE OBJECT BEING SHIELDED IS WIDER THAN THE DESIGNATED ATTENUATOR WIDTH, A TRANSITION WILL BE REQUIRED EITHER (a) BY PROVIDING A SPECIAL DESIGN CONCRETE TAPERED TRANSITION (SEE SEPARATE DETAILS) AS PART OF THE BACK-UP SYSTEM OR (b) BY MATCHING ATTENUATOR REAR WIDTH TO OBJECT SIZE UTILIZING A TAPERED ATTENUATOR MODEL WHICH INCREASES IN WIDTH FROM NOSE TO REAR (PER MANUFACTURER'S TAPERED MODEL NO.) WITH A STANDARD BACK-UP UNIT.
5. CROSS SLOPE OF PAD SHALL NOT EXCEED 8% AND NOT VARY MORE THAN 2% FROM FRONT TO BACK. THE ATTENUATOR SYSTEM SHALL BE LOCATED ON A RELATIVE FLAT AREA CLOSE TO OR AT ROADWAY LEVEL.
6. ALL ATTENUATOR UNITS SHALL BE CORRECTLY ANCHORED TO REINFORCED CONCRETE PAD OR OTHER APPROVED PAVED SURFACE PER MANUFACTURER'S RECOMMENDATIONS.
7. THE AREA IMMEDIATELY BACK OF THE ATTENUATOR SHALL BE CLEAR OF OBSTRUCTIONS THAT WOULD PREVENT THE REAR PANELS FROM SLIDING BACKWARD UPON IMPACT FOR A DISTANCE AS RECOMMENDED BY THE MANUFACTURER.
8. PAYMENT FOR IMPACT ATTENUATOR OF THE TYPE SPECIFIED SHALL INCLUDE THE ENTIRE UNIT WITH ALL ACCESSORIES, THE CONCRETE PAD, THE BACKUP SYSTEM, ANY TRANSITION REQUIRED, THE NOSE STRIPING PANEL WITH ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE SYSTEM.
9. BEFORE WORK BEGINS, THE CONTRACTOR SHALL OBTAIN THE MANUFACTURER'S INSTALLATION MANUAL, ASSEMBLY DETAILS, ANCHORING REQUIREMENTS, REINFORCING STEEL FOR CONCRETE RECOMMENDATIONS, AND ALL OTHER GUIDES AND INSTRUCTIONS NECESSARY FOR PROPER INSTALLATION AND PROVIDE COPIES OF SAME TO THE ENGINEER. THE CONTRACTOR SHALL INFORM THE MANUFACTURER OF ATTENUATOR OF SITE CONDITIONS INCLUDING FURNISHING ANY PLAN SHEETS OR SKETCHES AS NEEDED TO SHOW TRAFFIC FLOW DIRECTIONS, LOCATION AND DESIGN OF SHIELDED OBJECT, AND AVAILABLE ARES SIZE FOR LOCATION OF UNIT.
10. TO PREVENT VEHICLE SNAGGING, AN OFFSET AND/OR A TRANSITION DEFLECTION PANEL OR A CONCRETE TRANSITION SECTION IS REQUIRED AT ATTENUATOR REAR ON EACH SIDE SUBJECT TO TRAFFIC. SEE MANUFACTURER'S REQUIREMENTS.

DETAIL OF ATTENUATOR NOSE TREATMENT
FRONT VIEW

6" YELLOW STRIPE (REFL.)

6" BLACK STRIPE (FLAT)

3'-0"

DIRECTION OF TRAFFIC

45°

2'-6"

6" YELLOW STRIPE (REFL.)

6" BLACK STRIPE (FLAT)

DETAIL 'A'
*APPROACH TRAFFIC ON LT. SIDE ONLY

DETAIL 'B'
*APPROACH TRAFFIC ON BOTH SIDES

*STRIPES SHALL SLOPE DOWNWARD AT AN ANGLE OF 45° TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS. LEFT SHOWN, RIGHT NOT SHOWN, BUT MAY BE SPECIFIED.
THE 6" YELLOW STRIPES SHALL BE REFLECTIVE SHEETING, TYPE VI.
THE 6" BLACK STRIPES SHALL BE FLAT (NON-GLOSS) PAINT OR ANY OTHER APPROVED APPLICATION.
COLORS SHALL BE ACCORDING TO THE MUTCD.
STRIPING SHALL BE APPLIED TO 0.04" THICK ALUMINUM PLATE
OBJECT MARKER SHALL BE SECURED TO NOSE FRONT WITH THREE GALVANIZED ⅝" DIA. BOLTS WITH NUT AND WASHERS AS DIRECTED BY THE ENGINEER.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
IMPACT ATTENUATOR UNITS

TYPE P - - -
TYPE T - - - } SUB-SEC. 650.03
TYPE T/P - - -

REV. & REDR. MAR., 2001

	DATE	
	REVISION	
BY	DES. — DRW. — TRA. — CHK. —	

G-11